

WHAT IS CLAIMED IS:

1. A rotor structure of an inner rotor type motor, the motor comprising:

a stator including annular stator yokes each having a plurality of pole teeth along an inner circumference thereof and coils arranged inside said stator yokes, each coil being constructed by winding a magnet wire and

a rotor rotatably disposed with a small gap from said pole teeth of said annular yokes and having a permanent magnet arranged opposite to said pole teeth,

wherein said permanent magnet comprises a plurality of discrete segment magnets which are arranged apart from each other by resin molding.

2. A rotor structure according to claim 1, wherein each of said segment magnets has end surfaces in an axial direction of the rotor, an inner circumferential edge of which end surface is longer than an outer circumferential edge of said end surface.

3. A rotor structure according to claim 1, wherein said segment magnet has the end surfaces at least a part of the outer circumferential edge of which is provided with a chamfered portion or a stepped portion.

4. A rotor structure according to claim 1, wherein

recessed portions are provided on the sides of said segment magnets.

5. A rotor structure according to claim 1, wherein magnetization positioning means is provided on an axial end surface of the rotor for magnetization of said segment magnets.

6. A rotor structure according to claim 1, wherein said segment magnets comprise a rare earth magnet.

7. A rotor structure according to claim 1, wherein a thickness of said segment magnet is set to be equal to or smaller than one half of a magnetic pole pitch.

8. An inner rotor type motor including a rotor structure specified in claim 1.

9. A inner rotor type motor according to claim 8, which is a permanent magnet type stepping motor.

10. A method of manufacturing a rotor structure specified in claim 1, comprising the step of insert-molding a sleeve, which has a rotary shaft of the rotor pressed in and holds said rotary shaft, and said plurality of segment magnets.